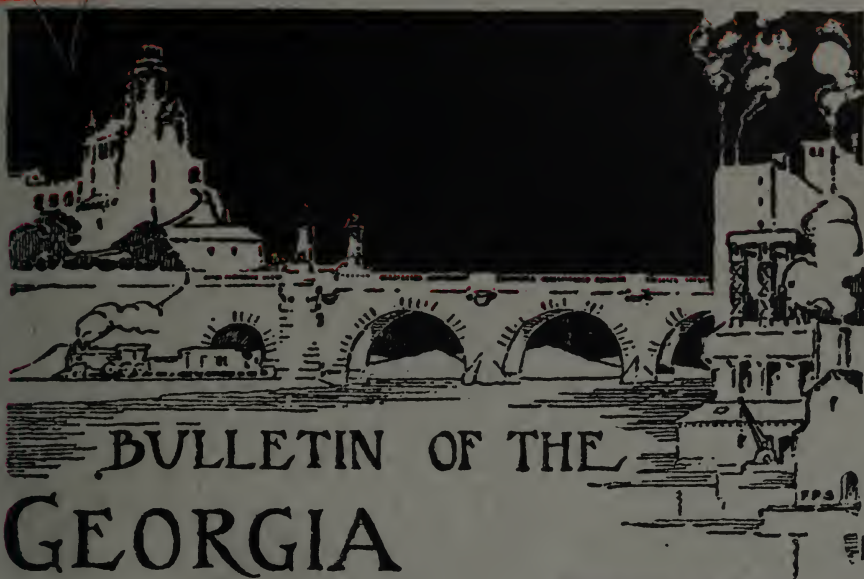


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BULLETIN OF THE
GEORGIA
SCHOOL OF
TECHNOLOGY

ATLANTA
JULY 1919

VOL XVI
NO III

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BULLETIN OF THE Georgia School of Technology

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Foreword



THE BULLETIN of July 1918, issued at a time we were in the very midst of the great World War, was devoted chiefly to the military activities and war work of the institution. The Georgia School of Technology looks back with a just pride on the service which she and her sons rendered the nation in this great crisis; and, with the return of peace, is doing all in her power to aid in the work of reconstruction.

The experiences of the past few years have impressed upon the world, as never before, the value of the technically trained man. Students from institutions like the Georgia School of Technology, have demonstrated that they have an education, which has fitted them for careers of efficient and exceptional service either in war or in peace.

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Atlanta, Ga.
July - 1919



BIRD'S-EYE VIEW OF THE GEORGIA SCHOOL OF TECHNOLOGY



WEST SIDE OF CAMPUS



GEORGIA TECH BATTALIONS IN LIBERTY LOAN PARADE.

THE GEORGIA SCHOOL OF TECHNOLOGY.

AIM

The aim of the Georgia School of Technology is to educate young men for lives of greater usefulness—to give them a training which will enable them to rise to positions of leadership in the business and industrial world. The courses offered are Mechanical Engineering, Electrical Engineering, Civil Engineering, Textile Engineering, Chemical Engineering, Chemistry, Architecture, and Commerce. The first two years of the course are devoted chiefly to general training in such subjects as English, Mathematics, Physics, Chemistry, and Drawing. On this foundation, the student specializes, during the remainder of the course, on the technical or professional work leading to his degree.

TECHNICAL TRAINING.

The term, *Technical Training*, as commonly employed refers to education in the useful or mechanical arts. It is sometimes called *Applied Science*, since it teaches the student to use his knowledge or to apply it to some form of serviceable activity. The technical school has arisen from the idea that knowledge is not only something to *have* but something to *use*. Whether the technical school graduate becomes an engineer, or enters some other field of activity, he has a foundation on which to build successfully, for he has been trained in the scientific and in the practical method—he knows how to *think rightly* and how to *work efficiently*.

ENGINEERING

Engineering has been defined as “the art of organizing and directing men, and of controlling and using the forces and materials of nature for the benefit of mankind.” Engineering is above all constructive and serviceable. It adds to the wealth and civilization of the community by converting useless materials and forces into forms which are highly useful. To engineering we owe our railroads, manufacturing plants, steamships, canals, water and sewerage systems, gas plants, improved streets and highways, irrigation, bridges, skyscrapers, automobiles, and electrical industries, including water power development, car lines, telephones, telegraphs, lights, etc.

The engineers today who are the leaders in their profession are men with a thorough technical training followed up by the most careful application to practical work.



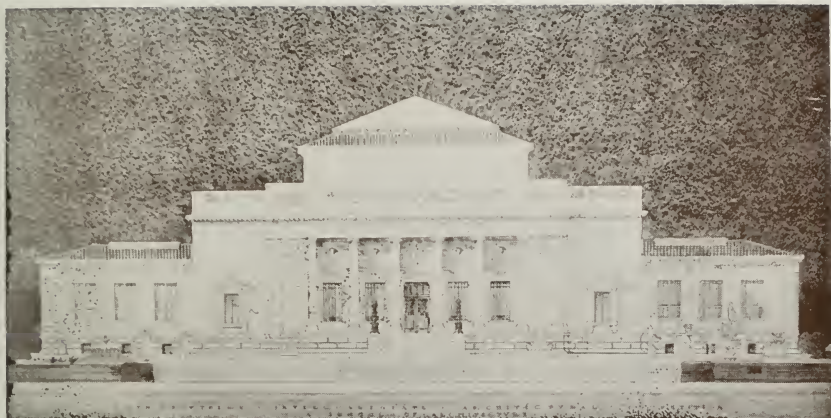
DESIGN WINNING FIRST PRIZE IN SOUTHERN INTER-COLLEGIATE
COMPETITION IN ARCHITECTURE 1919
PROBLEM: A NATIONAL SCHOOL OF ARCHITECTURE.

ARCHITECTURE.

In view of the special problems in design brought about by the development of new types of buildings in this country, the field for the capable architect is a broad and fascinating one.

The Department of Architecture at the Georgia School of Technology offers two courses: a regular course of four years, including the general training, which together with the special Architectural work leads to the degree of B.S. in Architecture; and a special course of two years, open to qualified draughtsmen, in which only Architecture is studied and for which a certificate is given.

Architectural Design and the subjects closely allied to it occupy the major portion of the curriculum. In the upper classes, whenever possible, problems given out by the Society of Beaux Arts Architects of America are taken. Designs submitted by Georgia Tech students have received awards in almost every competition which they have entered. Five times in six years they have won the Southern Inter-collegiate Competition in Architecture. In June, 1915, Mr. P. T. Shutze, a recent graduate of the School, won the Roman Prize in Architecture of the American Academy in Rome, which is one of the most highly coveted honors of its kind in the world. This prize provides residence and study in Rome and other classical lands for three years.



DESIGN WINNING FIRST PRIZE IN SOUTHERN INTER-COLLEGIATE
COMPETITION IN ARCHITECTURE 1918.
PROBLEM: A COUNTY COURTY HOUSE.



DESIGN WINNING FIRST PRIZE IN SOUTHERN INTER-COLLEGIATE
COMPETITION IN ARCHITECTURE 1917.
PROBLEM: A NATIONAL FORUM OF MUSIC.



SENIOR LABORATORY.

ENGINEERING CHEMISTRY.

The South has almost unlimited mineral and agricultural resources, the development of which has been especially rapid during recent years. This has caused an urgent demand for men with thorough training in Chemistry and Chemical Engineering to develop and control processes for the treatment of the various raw materials, and the recovery of the valuable by-products. Furthermore, the state of war that existed between this country and Germany prevented the importation of many materials manufactured abroad and needed in American industries, and also introduced a need for war materials in great quantities. As a result there has been a tremendous expansion of the Chemical Industries of the United States which promises to be permanent, and which has created an insistent and increasing demand for the Chemist and Chemical Engineer.

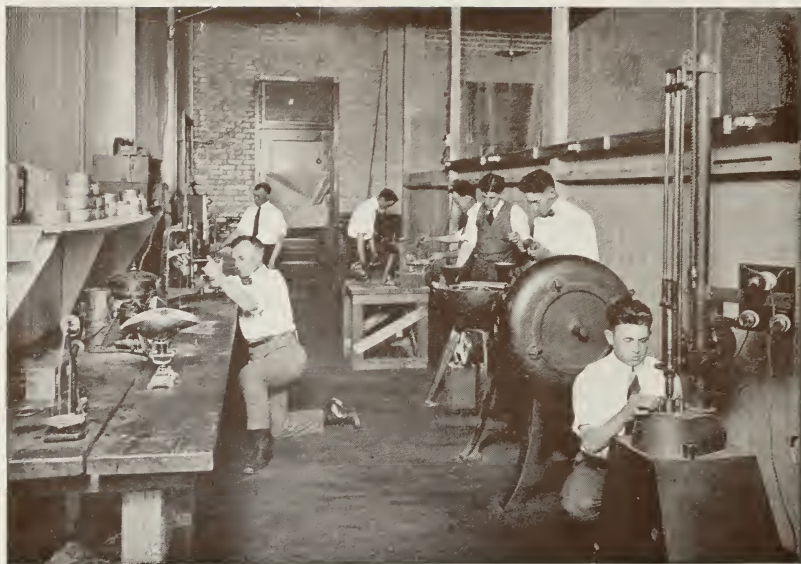
To meet these needs, the Department of Chemistry offers a four-year course, leading to the degree Bachelor of Science in Engineering Chemistry, and is well provided with laboratories, books, and apparatus needed for the purpose of instruction. In this course the students are grounded well in Physics and various chemical and engineering subjects, so as to insure their ability satisfactorily to take up any line in which Chemistry is applied to the industries.



LYMAN HALL LABORATORY OF CHEMISTRY.



CARNEGIE LIBRARY.



HIGHWAY LABORATORY—STUDENTS TESTING ROAD MATERIALS

CIVIL ENGINEERING

A course in Civil Engineering trains a man for such work as the planning and construction of railroads, highways, bridges, canals, water-works and sewerage systems, hydraulic power development, irrigation and drainage systems, and concrete and steel structures of various kinds.

The course is so outlined as to fit the student to be of immediate value in all branches of his profession, and to so train him that he may readily specialize in any of these. He is trained for service in the office or the field, in Railway and Structural Engineering, in Water Power Development, Irrigation and Drainage, in Municipal and Highway Engineering, in City Management and Financial Engineering—fields of unusual importance and opportunity on account of the great movement for modern water and sewerage systems and the demand for engineers with special knowledge of road materials, and of modern highway construction and maintenance.

The department of Civil Engineering at Georgia Tech has special advantages through a system of co-operation with Fulton County and the City of Atlanta. The Head of the Department of Highway Engineering is also the consulting Highway En-

gineer of the county and the city, and the city specialist in water supply and sewage disposal gives two courses at the School in Sanitary Engineering. The various engineering works of city and county are open to the students for practical inspection.



STRUCTURAL WORK IN CONCRETE



STRUCTURAL WORK IN STEEL

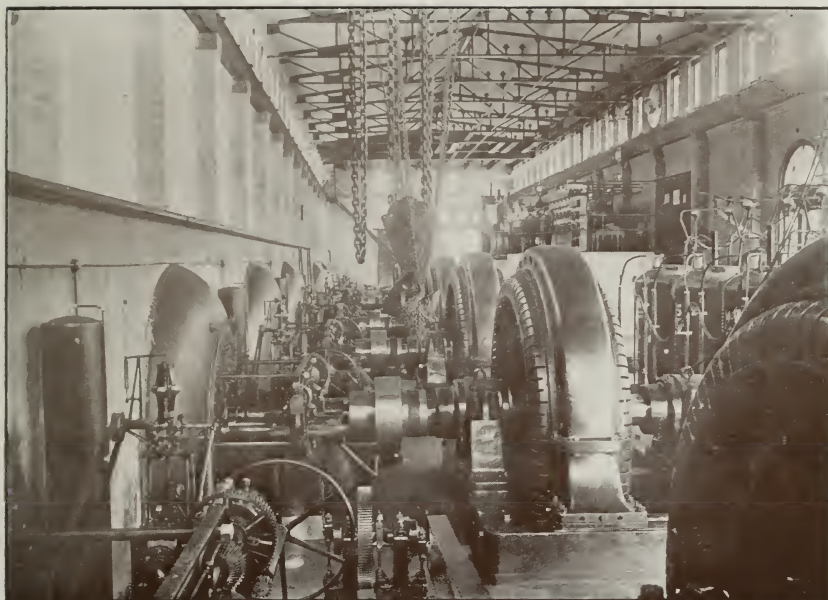


ELECTRICAL LABORATORY

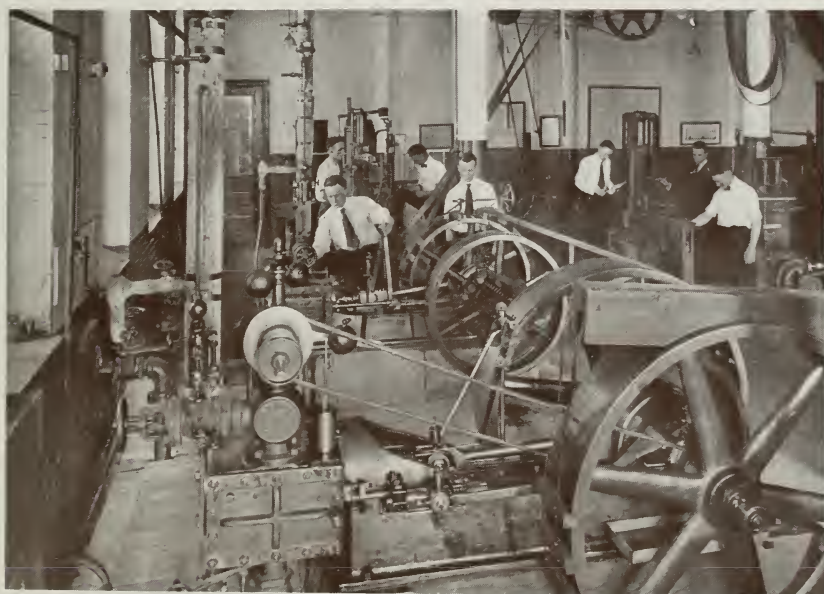
ELECTRICAL ENGINEERING

The course of study in Electrical Engineering that is offered extends for four years and leads to the degree of B.S. in E.E. This course aims to give the fundamental principles of engineering to the student and to develop in him analytical ability to attack engineering problems.

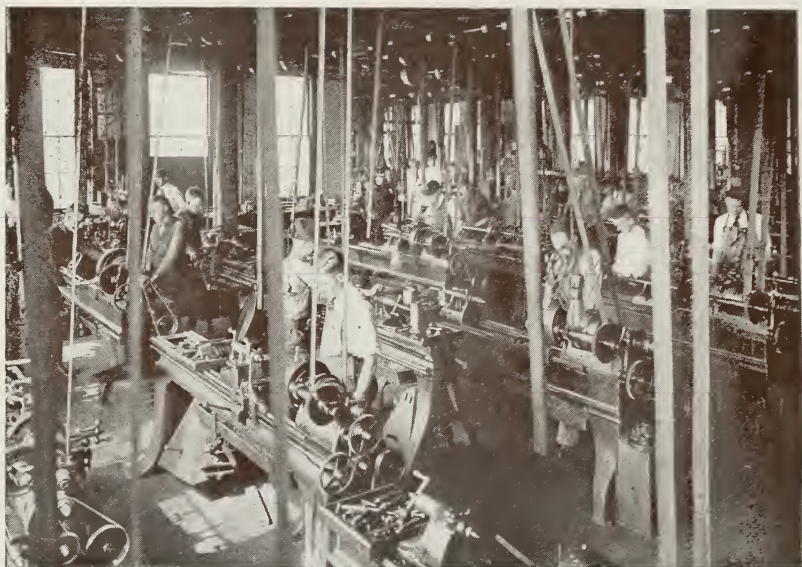
There are many opportunities for electrical graduates in the South. The extraordinary hydro-electric development is leading to the establishment of manufacturing plants, interurban railways, electro-chemical works, etc. There is an increasing demand for men as designers, constructors and managers of electrical plants. The rapid growth of wire and wireless communication has also caused a considerable demand for electrical engineers in that particular line of work.



A HYDRO-ELECTRIC POWER STATION OF THE GEORGIA RAILWAY AND POWER CO. THE GENERAL MANAGER AND SOME TWENTY OTHER OFFICERS OR ENGINEERS OF THIS COMPANY ARE GEORGIA TECH MEN.



CORNER OF EXPERIMENTAL ENGINEERING LABORATORY. COURSES IN THIS DEPARTMENT ARE REQUIRED OF ALL ENGINEERING STUDENTS.



SOPHOMORES DOING PRACTICAL WORK IN MACHINE SHOP

MECHANICAL ENGINEERING

The course in Mechanical Engineering aims to equip men for successful work in the design, construction, operation and testing of machinery, such as steam engines, gas engines, pumping machinery, steam boilers, transmission machinery, railroad equipment, etc. The steel industry, cotton and cotton oil industry, railroading of all kinds, building construction, and many other similar activities demand men competent to deal with the theoretical or scientific, as well as with the practical side of commercial and constructive work. With this end in view Mechanical Engineering is taught in both its theoretical and its practical aspects. In addition to the course of study in the class room, the students are required to do practical work in the shops and laboratories. They work in the wood shop, smith shop, foundry, and machine shop, and in the several testing laboratories. Thus they learn *to do* as well as *to know*. •



FRESHMAN FORGE WORK.



FRESHMAN FOUNDRY WORK.



FRESHMEN DOING BENCH WORK IN WOOD SHOP



NEW POWER STATION AND ENGINEERING LABORATORY



ELECTRICAL BUILDING



THE A. FRENCH TEXTILE SCHOOL.

TEXTILE ENGINEERING

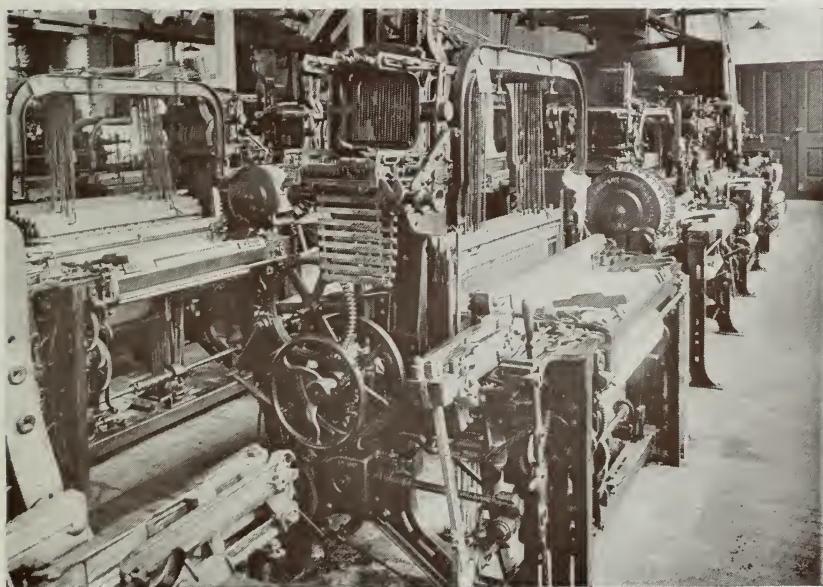
The A. French Textile School of The Georgia School of Technology is devoted exclusively to the study and practice of cotton manufacturing. This department occupies an entire building of three stories, which contains one of the most complete collections of modern cotton mill machinery to be found anywhere. Every process from the raw cotton to the finished fabric, including Dyeing, Fabric Analysis, and Fabric Design, is thoroughly taught both by theory and by practice.

In addition to the regular four-year course leading to a degree, the Textile Department offers a special two-year course for young men who are not able to remain longer. In this course the student devotes practically all of his time to textile subjects, but misses the valuable training in other studies, which he would get by completing the work for his degree.

On account of the magnitude of the cotton manufacturing industry in the South, the demand for trained men far exceeds the supply.



YARN MANUFACTURING DEPARTMENT



WEAVING DEPARTMENT-DOBBY LOOMS SECTION.

THE SCHOOL OF COMMERCE.

This school trains men for positions as general executives, sales managers, office managers, factory superintendents, accountants, and financiers. Special emphasis is given to trade between the United States and Latin American countries.

An investigation is made of the American methods of operating factories, banks, insurance companies, and mercantile and other business concerns and their methods of advertising and selling. A study is made of the location of factories, the sources of raw materials, the economic conditions which determine the location of factories, and the methods and facilities of transportation. A study is, also, made of the American government, its methods of operation and its laws governing commerce.

This institution has combined the experiences of others so as to afford the best training possible for commercial positions. The changed character, scope, and methods of modern business have united to demand men with a training superior to anything ever needed before. The course covers four years' study and leads to the degree of Bachelor of Science.

CO-OPERATIVE PLAN IN ENGINEERING.

Arrangements have been made with a number of Atlanta manufacturers which enable the Georgia School of Technology to give courses in Electrical and Mechanical Engineering on what is known as the Co-operative Plan. Students taking such courses work two weeks in the class rooms and laboratories, and the next two weeks in the shops and factories, learning, under actual commercial conditions the practical side of what they have learned in the school. The student is paid by the manufacturer for his work, and this helps many a worthy young man to pay a part of his expenses, though it is by no means the chief aim of the co-operative plan. The amount of this income ranges from \$200 to \$500 per year.

Nothing included in the regular course is omitted, and at the end of five years the student receives his regular degree, and, in addition, he has to his credit a great deal of practical experience, which is exceedingly valuable. The benefits more than compensate for the extra year.

Employers are finding the upper class co-ops valuable as assistants to their research engineers. Thus co-ops have splendid opportunities for testing and study under industrial conditions.



THE COMMERCE SOCIETY.



GROUP OF CO-OPERATIVE STUDENTS IN FRONT OF THE
"CO-OP HOUSE"



Y. M. C. A. LOBBY AND READING ROOM.

Y. M. C. A.

The Y. M. C. A. is the largest student organization at Georgia Tech, and during the past year practically every student availed himself of the opportunity it offers. The Association is the only religious organization among the students, and ministers in various ways to their character and to the spiritual side of their lives.

The building, which is the pride of the whole school, is located directly across North Avenue from the main campus and the athletic field. The two lower or basement floors are devoted to student enterprises and enjoyment. The college post office, a first-class barber shop, a large pool room and a restaurant are operated for the boys. The offices of the school papers, the Coach's office, a locker room, a barber shop and showers are also on the two lower floors. The main floor consists of a fine lounging room or lobby, two reading rooms, a big auditorium and the secretaries' office. The second floor has the faculty club rooms, the band room, two guest rooms, and an assembly room for the literary societies and devotional purposes. The third floor is a dormitory for upper class men.

The Association, with its excellent equipment, constitutes the real center of student life. Its splendid new home offers a wholesome atmosphere and adequate amusement, making it unnecessary for a boy to go to the city to spend his idle hours.

The Secretaries have had special training for work among college men, and they stand always in advisory and friendly relation to the students.



THE HONOR COURT



NORTH AVENUE BIBLE CLASS. THERE ARE TECH BIBLE CLASSES
AT A NUMBER OF THE CITY CHURCHES.



START OF THE ANNUAL CROSS-COUNTRY RUN.

ATHLETICS AND STUDENT ACTIVITIES.

Physical training at the Georgia School of Technology is embraced under three heads:

I. Military drill which is compulsory for all members of the Freshman and Sophomore classes who are physically qualified.

II. Mass athletics, a development in athletics brought about by the athletic directors in the war camps, where it was necessary to give exercise, games and military training to large bodies of men for physical hardening as well as recreation of the prospective soldiers.

III. Intercollegiate Athletics embracing football, baseball, track, tennis, basketball, swimming and golf, are sports which have found very enthusiastic support in the student body as shown by the splendid teams turned out in the last few years. For athletic purposes the school has one of the best fields in the country, Grant Field, which contains space sufficient for two football fields, a quarter-mile track, 220-yard straight-away, three baseball diamonds, a concrete grand stand which will seat 6,000 spectators, and a wooden stand which will accommodate 2,000.

STUDENT ACTIVITIES.

Among the activities which claim a most important part of student life are the Young Men's Christian Association housed in a splendid building; "Technique," which is the school newspaper appearing weekly; the Tech Band, the Glee Club, the Orchestra, the "Blue Print," the school annual published by the Senior class; the Greek Letter Societies; the Phi Kappa Phi honor society, and the Dramatic Club, all of which contribute to the cultural and social side of student life and help to weld into one harmonious whole the many elements which make up the student body of a great progressive institution.



1918 FOOTBALL SQUAD.



BASEBALL TEAM



TRACK TEAM



GEORGIA TECH BRANCH OF THE AMERICAN SOCIETY OF
ELECTRICAL ENGINEERS.



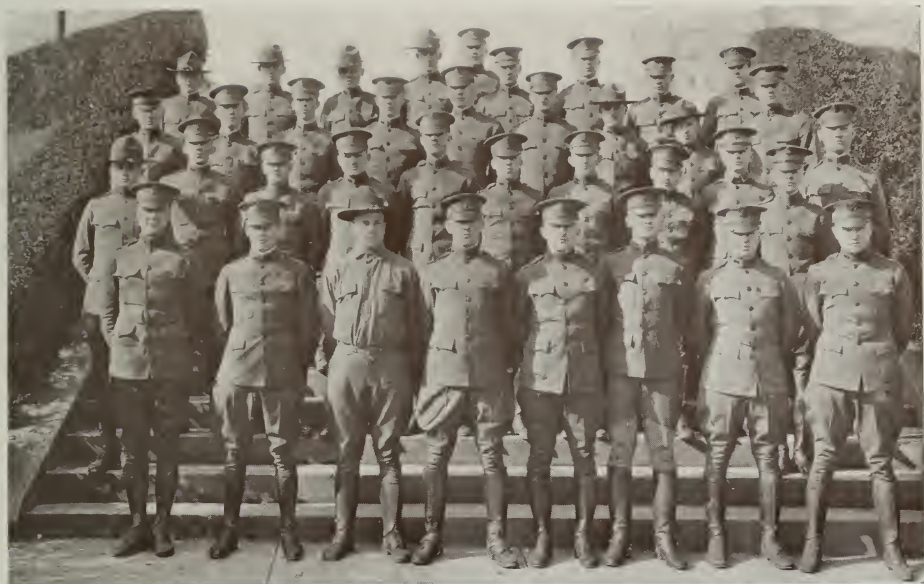
GEORGIA TECH BRANCH OF THE AMERICAN SOCIETY OF
MECHANICAL ENGINEERS.



GEORGIA TECH BRANCH OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS.



MARINE CORPS UNIT OF THE S. A. T. C.



OFFICERS CLUB—FORTY COMMISSIONED OFFICERS OF THE ARMY
OR NAVY WERE REGULAR MEMBERS OF THE STUDENT
BODY DURING SPRING TERM OF THE 1918-19 SESSION.



PAN-HELLENIC COUNCIL



CAMPUS LOOKING EAST FROM SWANN DOMITORY.



WHITEHEAD MEMORIAL HOSPITAL.



THE "TECHNIQUE" STAFF



LATIN-AMERICAN CLUB

ENTRANCE REQUIREMENTS.

The requirements for admission to the Georgia School of Technology are as follows:

The applicant must be at least 16 years of age, and he must present a certificate from the last school he attended, showing his scholastic record, and that he is of good moral character.

He must present also, by certificate of graduation from an accredited school or by examination, 14* units of high school work, and no applicant may be conditioned in more than two units. The following units are specified:

English -----	3	Physics -----	1
Algebra -----	2	History -----	1
Pl. Geometry -----	1	Solid Geometry -----	1½

The remaining five and one-half units may be made up from any regular high school subjects in addition to those listed above.

*After Jan. 1, 1920, the requirements will be 15 units.

TUITION AND FEES.

For students whose parents are legal residents of Georgia, and who hold county scholarships, the fees are:

<i>First Term</i>	<i>Second Term</i>
Semi-annual fee --\$12.50	Semi-annual fee ---\$12.50
Student Activities -- 6.50	Student Activities - 6.50
Medical fee ----- 5.00	Medical fee ----- 5.00
Deposit for damage 5.00	
\$29.00	\$24.00

Georgia students who do not hold county scholarships will add \$12.50 per term, and students whose parents are not legal residents of Georgia will add \$50.00 per term to the above charges.

Freshmen who do not reside with their parents are required to live in the dormitories. Board and room in the dormitories, including laundry, heat, and lights, is furnished at present at \$30.00 per month, payable in advance. Living expenses of students outside of the dormitories vary from \$270.00 to to \$375.00 for the year.

For catalog or other information, address.

THE REGISTRAR, Georgia Tech, Atlanta, Ga.

UNIVERSITY OF ILLINOIS-URBANA



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